

What is claimed is:

- 1 1. A database querying method, comprising:
2 obtaining a first data item from a database table of a database system in
3 response to a query request;
4 obtaining a second data item based on a value related to said first data
5 item, said value in an updated log file of said database system;
6 integrating said first and second data items into an integration result; and
7 returning said integration result to said query request.
- 1 2. The database querying method of claim 1,
2 wherein said second data item is obtained by translating said value
3 according to a predetermined translation rule.
- 1 3. A database querying system comprising:
2 a database access module for obtaining a first data item from a database
3 table of a database system in response to a query request;
4 a log extractor module for obtaining a second data item based on a value
5 related to said first data item, said value in an updated log file of said database system;
6 and
7 an integrator module for integrating said first and second data items into an
8 integration result, said integration result related to a response to said query request.
- 1 4. The database querying system of claim 3 further comprising :
2 a translator module coupled with said log extractor module and with said
3 integrator module for modifying said second data item from said log extractor module
4 according to a predetermined translation rule, before said second data item is used by said
5 integrator module.
- 1 5. A database querying system, comprising:
2 a database processor for receiving a query request and returning a
3 requested record set in response to the query request; and
4 a database system comprising a database table and an updated log file;
5 wherein said database processor is operably disposed to:

6 retrieving a first item from said database table responsive to said
7 query request;
8 retrieving a second item , comprising updated log data
9 corresponding to said first item, from said updated log file;
10 generating said requested record set, comprising said first item
11 and said second item; and
12 returning said requested record set to a query request origin.

1 6. The database querying system according to claim 5,
2 wherein the database processor comprises a translator for translating
3 updated log data, according to a predetermined translation rule, into translated log data
4 and substituting said translated log data for said updated log data in said second item.

1 7. A computer program product for use with a database system,
2 comprising:
3 a computer readable medium having program code embodied in said
4 computer readable medium, said program code comprising:
5 program code for obtaining a first data item from a database table of said
6 database system in response to a query request;
7 program code for obtaining a second data item based on a value related to
8 said first data item, said value in an updated log file of said database system;
9 program code for integrating said first and second data items into an
10 integration result; and
11 program code for returning said integration result to said query request.
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1 8. A database question and answer method using one or more
2 databases, each database comprising a database table and an updated log file, said
3 updated log file comprising information associated with said database table, said method
4 comprising:
5 receiving a query request from a user, said query request comprising a first
6 data item of said database table;
7 using said first data item, obtaining a second data item from said updated
8 log file;

9 modifying said second data item to a third data item using a predetermined
10 business rule;
11 generating a virtual table comprising said first and third data items; and
12 returning to said user an answer based on said virtual table.

1 9. The database question and answer method of claim 8 wherein said
2 virtual table is discarded after said answer is returned to said user.

1 10. The database question and answer method of claim 8 wherein said
2 predetermined business rule comprises an accounting time period.

1 11. The database question and answer method of claim 10 wherein the
2 accounting time period is a fixed day in a month.

1 12. The database question and answer method of claim 8 wherein said
2 predetermined business rule comprises a base time period.

1 13. The database question and answer method of claim 8 wherein said
2 predetermined business rule comprises a selected national calendar format for the day,
3 month, and year.

1 14. The database question and answer method of claim 8, wherein said
2 selected national calendar format is selected from a group consisting of a Japanese
3 Calendar or a U.S. Calendar.

1 15. The database question and answer method of claim 8 wherein said
2 predetermined business rule comprises a table name.

1 16. The database question and answer method of claim 8 further
2 comprising:
3 when said query request is for a plurality of databases, dividing said query
4 request into a plurality of sub-requests, each sub-request directed to a database of said
5 plurality of databases;
6 receiving a record set of a plurality of record sets in response to said sub-
7 request; and

8 integrating said plurality of record sets into a result for returning to said
9 user.

1 17. The database question and answer method of claim 8 wherein said
2 second data item comprises a timestamp for said first data item.

1 18. The database question and answer method of claim 8 wherein said
2 virtual table is a view table.

1 19. The database question and answer method of claim 8 wherein said
2 request is based on a search of said information in said updated log file.

1 20. A system for responding to a user query to a data base management
2 systems (DBMS), wherein said DBMS comprises a database table and an updated log
3 file, said system comprising:

4 a database access controller for retrieving a data item from said database
5 table responsive to said user query;

6 a translation module coupled with said database access controller for
7 retrieving an attribute related to said data item from said updated log file and for
8 translating said attribute into a modified attribute according to a translation rule; and

9 an integrator module for integrating said data item and said modified
10 attribute into a virtual table and returning to said user query an answer based on said
11 virtual table.

1 21. The system of claim 20 wherein said attribute is a timestamp.

1 22. The system of claim 20 wherein said translation rule comprises a
2 base time period.

1 23. The system of claim 20 wherein said translation rule comprises a
2 predetermined country's calendar format.

1 24. A system for responding to a user query to a data base management
2 systems (DBMS), wherein said DBMS comprises a database table and an updated log
3 file, said system comprising:

4 an access means for retrieving a data item from said database table
5 responsive to said user query;
6 an extraction means for retrieving an attribute related to said data item
7 from said updated log file;
8 a translation means for translating said attribute into a modified attribute
9 according to a translation rule; and
10 a virtual table comprising said data item and said modified attribute
11 wherein a response to said user query is based on said virtual table.

1 25. A computer readable data transmission medium containing a data
2 structure for responding to a user query, comprising:
3 a first part, comprising a database table entry, responsive to said user
4 query; and
5 a second part, comprising, a timestamp modified by a translation rule,
6 wherein said timestamp is a time value in an updated log file associated with said
7 database table entry.

1 26. The computer readable data transmission medium of claim 25
2 wherein said data structure is a virtual table.

1 27. A computer readable medium for storing code for querying a
2 database querying, comprising:
3 code for obtaining a first data item from a database table of a database
4 system in response to a query request;
5 code for obtaining a second data item based on a value related to said first
6 data item, said value in an updated log file of said database system;
7 code for integrating said first and second data items into an integration
8 result; and
9 code for returning said integration result to said query request.

1 28. The computer readable medium of claim 27, further comprising
2 code for obtaining said second data item by translating said value according to a
3 predetermined translation rule.

1 29. A database querying system comprising:

2 an access means for obtaining a first data item from a database
3 table of a database system in response to a query request;

4 an extractor means for obtaining a second data item based on a
5 value related to said first data item, said value in an updated log file of said database
6 system; and

an integrator means for integrating said first and second data items into an integration result, said integration result related to a response to said query request.

1 30. The database querying system of claim 29 further comprising :

2 a translator means for modifying said second data item from said log
3 extractor module according to a predetermined translation rule, before said second data
4 item is used by said integrator module.

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